AN APPARENT ASSOCIATION OF LICHEN PLANUS WITH VASCULAR HYPERTENSION*

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Regarding the etiology and pathogenesis of lichen planus, so little is known that any observation may be pertinent. To one who holds to the infectious theory it may seem odd to be interested in an association between lichen planus and vascular hypertension; such an association would be of greater interest to those who emphasize emotional factors in each disease. An apparent association might be significant if sufficient numbers with one disorder coincidentally had the other. Casual observations suggested to me that such might be the case; but unfortunately the disease is relatively uncommon, and equally unfortunately, like most dermatologists in private practice, I have not recorded data on vascular tensions in every case, especially in early stages of this study. Nevertheless I have reviewed the records of a series of 67 unselected patients observed over a period of 27 months. This method has the obvious defect of failing to demonstrate the pressures in a considerable number (31% of the series). Incidence of hypertension is therefore recorded (1) in relation to all cases of lichen planus and (2) in those cases where the pressure was known. The first figure can hardly be expected to indicate a falsely high correlation, but rather the opposite.

In such a study one must choose standards as regards abnormality of vascular tension. Strict standards require a long period of observation which is impractical here (partly because it is desired not to call the patients' attention to suspected presence of "sickness"). Dependence upon single determinations of pressure in these patients is probably about as likely as not to give the true average for the group. General physiologic and medical opinion regards diastolic pressure as abnormal at any age if it is more than 90 mm. of mercury. Systolic pressure is generally thought to be abnormal if over 140 mm. before 40 years of age, and, if over 150 mm. after 40 years. Accepting these figures as standards the present series includes 25% known to have hypertension. Of those whose pressures were recorded, 40% had hypertension.

Any significance in the apparent association depends upon knowledge of the incidence of hypertension in the normal population, but pertinent references are few. The figures of Lewis (1) suggest that hypertension is found in 8 per cent of persons between 40 and 65 years; his series is small (150 persons). Alvarez and Stanley (2) record incidence of hypertension in a group of 3677 male prisoners of ages beyond 15 years; they found it in 5 per cent of those under 40 years and 8 per cent of older persons. The figures of the present report greatly exceed these standards.

Perhaps more detailed attention should be given to the ages of these patients as stated in Table 1. Hypertension was noted in 25 per cent of the entire series

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(40 per cent of those whose pressure was determined). As might have been expected, hypertension was not noted in the younger patients. If one considers only those over 30 years of age, hypertension was noted in 32 per cent (45 per cent of those whose pressure was determined).

The figures in Table 2 illustrate that the extent of the eruption seems not to be related with presence or absence of vascular hypertension, though the series is

TABLE 1

Blood pressure in relation to ages of 67 patients with lichen planus

AGES IN YEARS	BLOOD PRESSURE		
	Not known	Normal	Hypertensive
0–30	10	4	0
31–40	10	6	4
41–50	3	9	2
51–60	1	4	7
61–70	1	2	4
Totals	25	25	17 (25%)

TABLE 2

Extent and duration of eruption in relation to age in patients with and without hypertension (excluding those under 31 years)

	31–50 YEARS		51–70 YEARS		TOTALS
	Acute	Chronic	Acute	Chronic	
Normal					
Limited	1	3	0	3	7
Extensive	4	7	1	2	14
	5	10	1	5	21
Hypertensive					
Limited	0	2	2	1	5
Extensive	1	3	0	8	12
	1	5	2	9	17

certainly too small to be conclusive on that point. Those patients under 31 years of age were not included in this tabulation because none had hypertension.

There were more patients with eruptions of short duration among the 31 to 50 year old non-hypertensive patients, and the older hypertensive persons showed more eruptions of a chronic nature; but the exceptions were so numerous as to suggest that the duration of the eruption was not a likely explanation for the association with hypertension. This is particularly true since the incidence of hypertension was abnormally high in either age group even among those patients whose eruptions had been present only one month or less. One would be inter-

ested in the duration of the hypertension but patients do not ordinarily know when this process begins. Only six patients in this group knew that their hypertension preceded the examination in my office.

SUMMARY

It is the author's opinion that the onset, development, and course of lichen planus are closely linked with psychologic and emotional factors. The presence of vascular hypertension in 25 per cent to 40 per cent of persons with lichen planus is cited as evidence of a significant relationship which may support that opinion. At least, the association cannot easily be explained if one regards lichen planus as an infectious disorder.

REFERENCES

1. Lewis, W. H., Jr.: Changes with Age in the Blood Pressure in Adult Men. Amer. Jour. Physiol. **122**: 491, 1938.
2. Alvarez, W. C. and Stanley, L. L.: Blood Pressure in 6,000 Prisoners and 400 Prison Guards. Arch. Int. Med. **46**: 17, 1930.